

NATIONAL QUARANTINE AND ITS FUNCTION.

By ALFRED C. REED, M. D., San Francisco.

Words like men grow old and increase, diminish or change in their signification. Some are born for the life of an hour and a colloquial local usage: others rise naturally in due process of human need for them and fill out a sober, literal and useful existence to perish by inanition as the times change and leave them stranded on the sands of the past. Again certain words spring full-voiced into being when some slowly developing idea of the human mind suddenly becomes articulate and demands speech in which to make itself known. So did quarantine receive its name and in the five hundred years since its birth, it has grown and developed into a great and vital principle of modern society, and has in great measure cast aside the swaddling clothes of its original meaning.

The word took origin from the practice instituted by the Venetians and Lombardians in the fourteenth century of detaining for forty days (quarante dies) in public lazarettoes, all ships and their crews coming from the plague-infected Levant. True, in the seventh century the principle of quarantine was known in the orient but its occidental life began in Italy. Since then the principle of quarantine has kept pace with the increasing knowledge of the causes of epidemic diseases, and to-day the United States has a carefully organized and successfully administered national quarantine system.

This system constitutes an important part of the duties and responsibilities of the Federal Public Health Service. This service has a long and honorable history. When it was founded one hundred and eighteen years ago as the Marine Hospital Service, it had only to do with furnishing relief to disabled American merchant seamen. It was a very unique institution and distinctively American. Patriotic pride can find few objects worthier of contemplation than this service, which has fought so many battles of peace and health for the country. Its functions now include all phases of national health protection, and, as will appear, a large part of these are comprehended in the principle of quarantine.

National quarantine may be considered in two ways. First is the technical quarantine system of the country concerned with preventing the entrance of epidemic disease from foreign countries. Second is the much broader consideration of excluding all influences which tend to lower the public health status of the country.

The technical quarantine system of the United States embraces nearly sixty stations on the Atlantic, Pacific and Gulf seaboards. Officers of the Public Health Service are attached to each, and board all vessels coming to this country from foreign ports, examining to see that quarantinable diseases are not on board and that the vessels have complied with the foreign quarantine regulations of the United States. Each quarantine station has barracks for detaining crew and passengers from infected vessels and where a period of observation is necessary to make sure that some serious disease

is not harbored by them. An isolation hospital is likewise required for those actually ill. A crematory, disinfection plant, quarters for officers and attendants, and launches for boarding duty must also be included.

Six diseases only are subject to quarantine restrictions. These are leprosy, typhus fever, cholera, plague, smallpox and yellow fever. While there are others which are by nature epidemic as dengue, measles, scarlatina, diphtheria, etc., there is not the same danger of these getting beyond the control of local health authorities, nor are they so difficult to control or dangerous in their results if they are introduced. If any of these are found on board an incoming vessel the affected persons are removed to the quarantine hospital, the ship is disinfected and all persons on board are held in quarantine a definite number of days to see if more cases of the disease will develop from the exposure. Under certain conditions vessels from ports where these diseases are raging in epidemic form are held in quarantine long enough to insure that no cases will develop on board before sailing.

The three great diseases which are continually threatening and protection against which requires sleepless vigilance, are cholera, yellow fever and plague. Cholera will seek entrance more insistently than ever with the final ending of the European war, and the need for efficient quarantine will increase enormously. From the Slavic, Balkan and Mediterranean races will come the greatest danger of epidemic disease, particularly cholera. The disbanding of the armies will see it spread anew through Europe. The quarantine watch will need to be most rigid if America is to escape. The political disorder in Mexico has also brought a special quarantine problem in respect of typhus fever. Of course India and China, the home of epidemics, must always be guarded against.

We have also in the western hemisphere a health menace which will assume large proportions with the opening of the Panama Canal to full traffic. This menace lies in the west coast of South America. Here yellow fever and plague rage the year round. Here are some of the worst pest holes of the tropics. Modern sanitation and practical knowledge of these diseases has made but little efficient headway. With traffic established through the canal, direct steamer lines will connect these ports with our own cities on the Mexican Gulf and Atlantic coast. New Orleans remembers well her last disastrous encounter with Yellow Jack in 1897, and again how a terrible epidemic was narrowly averted in 1905 by the United States Public Health Service. New York had a similar experience with cholera in 1893. The western cities of South America will have to clean up or risk an embargo against them. The public is beginning to realize that these epidemic diseases are entirely preventable and that the United States cannot afford in money or lives to tolerate conditions which make them possible.

The Public Health Service conducts the present quarantine of the Canal Zone, Alaska, Porto Rico, Hawaii, and the Philippine Islands. The service is also giving the Philippines and Hawaii the best

public health administration they ever had. The Boston quarantine station has recently been transferred to Federal authority, and the New York quarantine, practically the last non-Federal survivor, has now a Public Health Service officer in command.

All vessels leaving foreign ports for the United States must comply with certain requirements of the foreign quarantine regulations of the United States, and must have a bill of health giving detailed information as to the ship, cargo, crew and passengers.

Quarantine may also be considered in a broader meaning of the word as the exclusion of all influences tending to lower the public health of this country. Every nation has the inherent right of protecting herself from harmful invasion from without. If it is to survive, this right must be exercised as a duty. No foreign foe is half so costly in lives and money as the disease foes with which we are constantly fighting. It taxes our best effort to make headway against the disease, ignorance, and disregard for sanitary law already existing in the country. It is very necessary to cut to the lowest possible point the introduction of anything tending to increase these conditions.

Specifically contagious and epidemic diseases must of course be kept out. Then must be considered those conditions which tend to produce an unhealthy and degenerate second generation. On the physical side are many diseases and infirmities which not only tend to make the victims dependent on charity for support, but even more seriously result in weakness, incapacity and disease in the descendants. On the mental side are insanity and all the various grades of mental defectiveness, including feeble-mindedness and epilepsy. These conditions are just as dangerous and finally cost the community just as much as plague, smallpox and cholera. And, moreover, instead of this stock tending to die out as is the case with the physically diseased and defective, it tends to reproduce faster than the average and for generations unnumbered the trail of the original defect or disease can be followed through an increasing host of the insane, feeble-minded, epileptic, perverted and degenerate.

Certainly our broad national quarantine against influences tending to lower the public health status must take full cognizance of this. For public health is complex and many-sided, and includes mental health and moral health as well as physical health. We find that in effect the exclusion of mentally and physically unsound immigrants carries out this principle and meets the need. The complete medical examination of immigrants is indeed an important feature of national quarantine; in fact, it is perhaps the most important.

Every one is agreed that unsound immigrants should not be allowed to land. But it is difficult to frame laws and administer them after they are framed which shall put into effect this generally accepted proposition. However, Congress has passed laws designed to effect this object, and every person must be interested in their effectiveness from the standpoint of public health. Wherever the public health interests of the country are at stake

there will be found the Public Health Service, ever vigilant, careful, studious, assisting the local authorities and correlating the activities of the various sanitary agencies throughout the country. So it is to be expected that this service should be entrusted by Congress with the responsible and onerous task of making physical and mental examination of all immigrant aliens. In addition, therefore, to its fifty and more quarantine stations in the continental United States, the Public Health Service has officers detailed at nearly as many more stations for the medical examination of arriving aliens.

It would be in the interests of convenience, economy, efficiency and expediency if the work of medical examination of immigrants were consolidated with quarantine. We have seen that the two are really one, and even now are conducted by the same corps of officers.

Public health is rapidly becoming of paramount interest. It must always be remembered, however, that the subject has many different phases, and that it must be considered in a relation so broad as to include or touch upon every activity of each person's mental and physical life. Two lines of endeavor are necessary to raise the standard of public health. The first of these is purely internal or domestic, and consists in improving conditions already existing. The second is external and protective, and consists in keeping out further extraneous influences of whatever sort which in any way are inimical to the public health status of the country. In other words, this second line of endeavor constitutes quarantine. And we see how the word itself has grown in signification and taken on a new and infinitely broader meaning.

WHY CORRECTIVE LENSES OFTEN FAIL TO GIVE RELIEF IN HEADACHES DUE TO EYE-STRAIN.*

By RODERIC O'CONNOR, M. D., Oakland.

By "corrective lenses" is meant an accurate correction properly adjusted in order to exclude troubles due to improper lenses poorly adjusted. By "eye-strain" is meant that due to the eye primarily and not that occurring as part of a general asthenia or as a symptom of some general disease. Conditions of actual ocular disease are also excluded.

It is the common belief among the laity that, if headaches or other symptoms of eye-strain are not relieved by glasses, nothing further can be done. In view of the fact that this belief is not uncommon among medical men it is probably worth while to make clear the reasons for the frequent failure of lenses to do good and for the not unusual occurrence of their actually increasing the symptoms.

Headache, as you all know, is a pain felt almost entirely in the dural distribution of the fifth cranial nerve. This sensation may be due to (1) direct irritation of the nerve terminals, (a) by toxic products, (b) by direct pressure, (c) by involvement in inflammatory processes; (2) or it may be due to reflex causes. In the latter an irritation in some one or other of the reflex arcs con-

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